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ABSTRACT

This study investigated the mutual control and influence patterns in mother/child social interactions. A total of 28 mothers and their 3-year-old children participated in the study. All of the families were black with average income below the poverty line, and the average maternal educational level was 10th grade. Behaviors of each mother and child pair interacting in a playroom were scored from videotapes by two observers using an electronic, digital recorder. The state of activity of mothers and children was assigned to one of four categories (mutual play, passive interaction, play alone, or no clear activity) and two types of direct attempts to influence the other's behaviors were also scored (suggestion of an entirely new activity or suggestion of a modification of an ongoing activity). Results showed that mothers were almost continually involved in attempting to structure their children's play through both major and minor suggestions. Their directive attempts far exceeded those of their children, although mothers were quite responsive to requests by their children. Findings also showed that children exercised a great deal of indirect effect on their mother's behavior. In making suggestions, mothers were sensitive to what their children were doing and altered their responses accordingly. Children were indirectly affected by the mother's behavior only in their alterations of showing and giving toys; children were not as sensitive to contextual cues in attempting to directly modify their mother's behaviors. (JMB)

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RECIPROCAL CONTROL IN SOCIAL INTERACTIONS OF MOTHERS AND THREE-YEAR-OLD CHILDREN

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RECIPROCAL CONTROL IN SOCIAL INTERACTIONS OF MOTHERS AND THREE-YEAR-OLD CHILDREN

Dale C. Farran and Ron Haskins

Bell's (1968,1971) classic articles concerning the direction of effects in parent-child social behavior have provided the impetus for subsequent research on "untangling the stream", as Bakeman (1976) puts it, of parent-child interaction. Much of this research has been confined to the infancy period and has involved rather elementary dyadic interactions; for example, face-to-face vocalizations (Strain & Vietze, 1975), feeding (Kaye, 1975), and mutual gaze (Stern, 1974).

The interactions of parents and older children are more difficult to untangle because the behavioral repertoire of the child is obviously greater, and because it includes both verbal and non-verbal means of exercising control over the parent. The interactions of poverty mothers and their older children have been studied in some depth by Hess & Shipman (1965), Bee, et al. (1969), and Zunich (1961), among others, but, to date, these studies have focused almost exclusively on the mother's behavior toward the child in both structured and non-structured situations. It is not clear what effect the child had on his mother's behaviors and, thus, how appropriate her behaviors were given the child's demand characteristics. The study presented here is addressed to the issue of mutual control and influence in the social interaction patterns of poverty mothers and their 3-year-old children.

Twenty-eight 3-year-old children and their mothers participated in this study. The families were all black and the average income was below the poverty line. Average maternal IQ was 82; educational level was 10th grade.

The 20 minute observation sessions were conducted in a carpeted room with 9 square meters of floor space, furnished with a couch, a chair, an end table and a lamp and magazines for the mother. In addition, a small table and chair with writing and coloring material, a plastic rocking chair and a box of toys were provided for the child.

A female experimenter accompanied the mother and child into the room and explained that we wanted to see how children played with toys and their mothers. Both mothers and children had been in the room on at least two previous occasions, and both had met and talked with the experimenter before.

Behaviors of mothers and children were scored from videotapes by two observers using an electronic, digital recorder. The following behaviors were scored for both mothers and children. In the first set of behaviors, the state of activity of mothers and children was assigned to one of four categories:

Mutual play--the mother and child were both in contact with the same toy and performing the same manipulative activity together. Mutual play continued as long as both were actively involved, even though one may have ceased at times to contact the toy.

Passive interaction--mother or child was typically separated from the other but was watching the other's activity.

Play alone--mother or child was again separated from the other but, in this case, was engaged in an activity that did not involve the other.

No clear activity--if mother and child were not in any of the above stages, they were considered to be in no clear activity.

Two types of direct attempts to influence the other's behaviors were also scored. In the first, the subject suggested that the other begin an entirely new activity with the material in the room. Thus for example,

mothers told their children to color in the coloring book or to play with the blocks; children told their mothers to help them build a tower. The second type of influence occurred when the subject suggested a minor modification of the other's ongoing behavior that did not involve a major shift in activity. Mothers, for example, told children to color with the red crayon or to put a puzzle piece in a specific place; children told their mothers to look at their pictures or to eat some imaginary toast during mutual play. In either the case of suggestions for new activities or minor modifications of ongoing activity, the other could accept the subject's attempt to influence, the other could directly reject the attempt, or the other could simply ignore the attempted influence.

The interactive behaviors of showing and giving toys were also scored for both mothers and children.

Independent reliability was calculated for both duration and frequency of all codes by percent agreement and summed across codes for two of the 20 minute sessions. Reliability in independent scoring was 60% for frequency and 76% for duration using a 3 second criterion for onset. In addition scoring reliability was checked for all tapes by reviewing a record of the session as coded for logical inconsistencies and errors and then correcting these against the videotapes.

Results indicate that the social interactions of poverty mothers and their 3-year-old children were characterized by both reciprocity and independence as mothers and children were alternately involved with each other and engaged in independent behavior. Figure 1 provides an overview of the level of involvement between mothers and children during the session. The proportion of the session spent in each activity is

represented on the ordinate; mother and child behaviors on the abscissa. Maternal behaviors are represented by the open bars, child behaviors by the cross-hatched bars.

From Figure 1, it can be seen that mothers and children were engaged in mutual play for 25% of the session. When mothers were not actively playing with their children, they were attentively watching--passive interaction--their children's play for an additional 40% of the time. Children were unlikely to be passively observing their mother's behavior. Children spent most of their time engaged in activities independent of the mother--playing alone--whereas mothers were involved in independent activity--primarily by reading a magazine--for about 30% of the session. Mothers and children spent little time in no clear activity. From these data, it is apparent that mothers spent about 65% of the session in direct or indirect interaction with the child. By contrast, children spent nearly 70% of the session in play by themselves.

It is possible that although the child was playing by himself, he was indirectly under the mother's control because she had suggested the activity for him to do. In fact, when the child was independently playing with toys, most of the time he was involved in an activity which he had begun. Only 25% of his play was an activity which the mother had suggested to him. Mutual play, on the other hand, was more likely to occur at the initiation of the mother. Most of the occurrences of mutual play were of the following pattern: mothers were watching the child's directed, independent play, joined in for a period of about 40 seconds and then pulled back to watch again.

The level of self-initiated activity by the child should not be taken as an indication that mothers were not attempting to influence

the activities in which their children engaged. Mothers suggested new activities for the child an average of 8 times during the 20 minute session; children complied with about 40% of these suggestions and refused approximately 7%, ignoring the rest. When children suggested activities for their mothers to be involved in, they were almost exclusively requests to the mother to join in some ongoing play of the child. These three-year-old children almost never suggested that the mother begin an independent activity. When children did request their mother's involvement, mothers complied 65% of the time.

In addition to suggestions of major activities to carry out, mothers and children frequently engaged in minor modifications of each other's behavior. Mothers made an average of 32 such requests per session and children did whatever behavior the mother had suggested about half the time, actively refusing to do what was requested only 8% of the time. The rest of the requests were ignored. Children attempted to direct their mother's ongoing behavior an average of 7 times a session; mothers responded positively to these requests 53% of the time, actively refusing only 1% of the requests.

It is interesting to note that although both mothers and children attempted to control the other's behavior, mothers did so far more often than children. Indeed, collapsing across the two control categories, mothers made some attempt to influence their child's behavior every 30 seconds. By contrast, children tried to influence their mother's behavior only once every 2 minutes. It is also interesting that mother and children responded to suggestions in about the same manner: ignoring rather than directly refusing about half of the attempts to influence their behavior.

Summary scores of direct, explicit modification attempts provide information about the pattern of mutual control between mothers and children; they are even more informative when one looks at the context affecting their use. Figures 2-5 demonstrate one method of assessing contextual effects by a comparison of baseline and conditional probabilities. Figure 2 examines contextual effects on suggesting a major new activity for both mother and child. The baseline represents the probability of the suggestion of a new activity occurring in a particular 5 second block averaged across the entire session. For mothers, the baseline probability of suggesting a major new activity was 3%; for children it was 1%. The conditional probabilities, to the right of the baseline, represent the probability that the behavior occurred in a 5 second block given the previous occurrence in the same 5 second block of particular behaviors by the other. The likelihood that the mother would suggest a new activity to the child was greatly increased if the child himself was in no clear activity and considerably lower if the child was engaged in purposeful independent play or in mutual play with her. Children, on the other hand, were equally likely to suggest a major new activity for the mother regardless of whether mothers were reading or watching their children's play attentively. The only time children did not attempt to alter the activity underway was when they were already engaged in play with their mothers.

Figure 3 portrays the contextual effects of the likelihood of each member of the dyad modifying the other's ongoing behavior through minor requests. The baseline probability for mothers was 11%, but clearly there were two child states which elicited more of these requests from her: no clear activity by the child and mutual play. If the child was engaged in independent play, the mother was much less likely to try

to modify his behavior. The child, however, made modification requests with almost no regard for the mother's ongoing activity.

The behaviors just reviewed are primarily verbal, direct attempts to control another's behavior. Children utilize these behaviors infrequently and show little sensitivity to context when they do use them. Children are more likely to use non-verbal, interactive behaviors with their mothers--showing and giving toys--and their use of these behaviors is much more influenced by what the mother is doing as the next two figures illustrate. Figure 4 focuses on showing or extending toys, what we have termed "show". Mothers restrict their use of this behavior to times of mutual play. Children show or point to toys about twice as much as mothers and are more likely to do so when the mother is attending to them, that is, passively interacting with them; they are less likely to do so when she is reading to herself.

Giving toys, examined in Figure 5, occurs fairly infrequently for both mothers and children and when it does, it occurs most during mutual play for both. One might have thought that children would interrupt their mother's reading in an attempt to get her involved by bringing her a toy. In fact, children in this sample seldom did that, perhaps because verbal methods of initiation are now possible and are more effective.

What can we conclude from this analysis of the interaction patterns of poverty mothers and their 3-year-olds?

First, that overall, these were very child-oriented interaction sessions. One-quarter of the time these mothers and children were actively involved with each other in mutual play; for an additional 40% of the session mothers were attentive observers of what their

children were doing. Thus, mothers were involved in their children's behavior almost 65% of the session.

Second, that mothers were almost continually involved in attempting to structure their children's play through both major and minor suggestions. Their directive attempts far exceeded those of their children although mothers were quite responsive to requests by their children.

Third, that children exercised a great deal of indirect effect on their mother's behavior. In making suggestions, mothers were sensitive to what their children were doing and altered their responses accordingly. Children were indirectly affected by the mother's behavior only in their alterations of showing and giving toys; children were not as sensitive to contextual cues in attempting to directly modify their mother's behaviors.

The results presented here illustrate an approach to analyzing dyadic interactions of mothers and older children which takes into account both direct attempts to influence behavior and the indirect influence on behavior provided by contextual cues. These poverty mothers and children were clearly engaged in social interactions influenced by both participants, it will be extremely interesting to compare their interaction patterns with mothers and children from different socioeconomic backgrounds and with the interaction patterns of fathers and 3-year-olds, using the same procedures discussed here. We intend to pursue both comparisons in further research.

References

Bakeman, R. Untangling the streams of behavior: Sequential analyses of observational data. Paper presented at the conference on Application of Observational-Ethological Methods to the Study of Mental Retardation, Lake Wilderness, Washington, June, 1976.

Bee, H. L.; VanEgeren, L. F.; Steissguth, A. P.; Numan, B. A.; & Leckie, M. S. Social class differences in maternal teaching strategies and speech patterns. Developmental Psychology, 1969, 1, 726-734.

Bell, R. Q. A reinterpretation of the direction of effects in studies of socialization. Psychological Review, 1968, 75, 81-95

Bell, R. Q. Stimulus control of parent or caretaker behavior by offspring. Developmental Psychology, 1971, 4, 63-72.

Hess, R. D. & Shipman, V. C. Early experience and the socialization of cognitive modes in children. Child Development, 1965, 36, 869-886.

Kaye, K. Toward the origin of dialogue. Paper presented at the Loch Lomond Symposium, University of Strathclyde, Scotland, September, 1975.

Stern, D. N. Mother and infant at play: The dyadic interaction involving facial, vocal and gaze behaviors. In M. Lewis & L. A. Rosenblum (Eds.). The effect of the infant on its caregiver. New York: Wiley Interscience, 1974.

Strain, B. A. & Vietze, P. M. Early dialogues: The structure of reciprocal infant-mother vocalization. Paper presented at the biennial meeting of the Society for Research in Child Development, Denver, April, 1975.

Zunich, M. A study of the relationships between child rearing attitudes and maternal behavior. Journal of Experimental Education, 1961, 30, 231-241.

Figure Captions

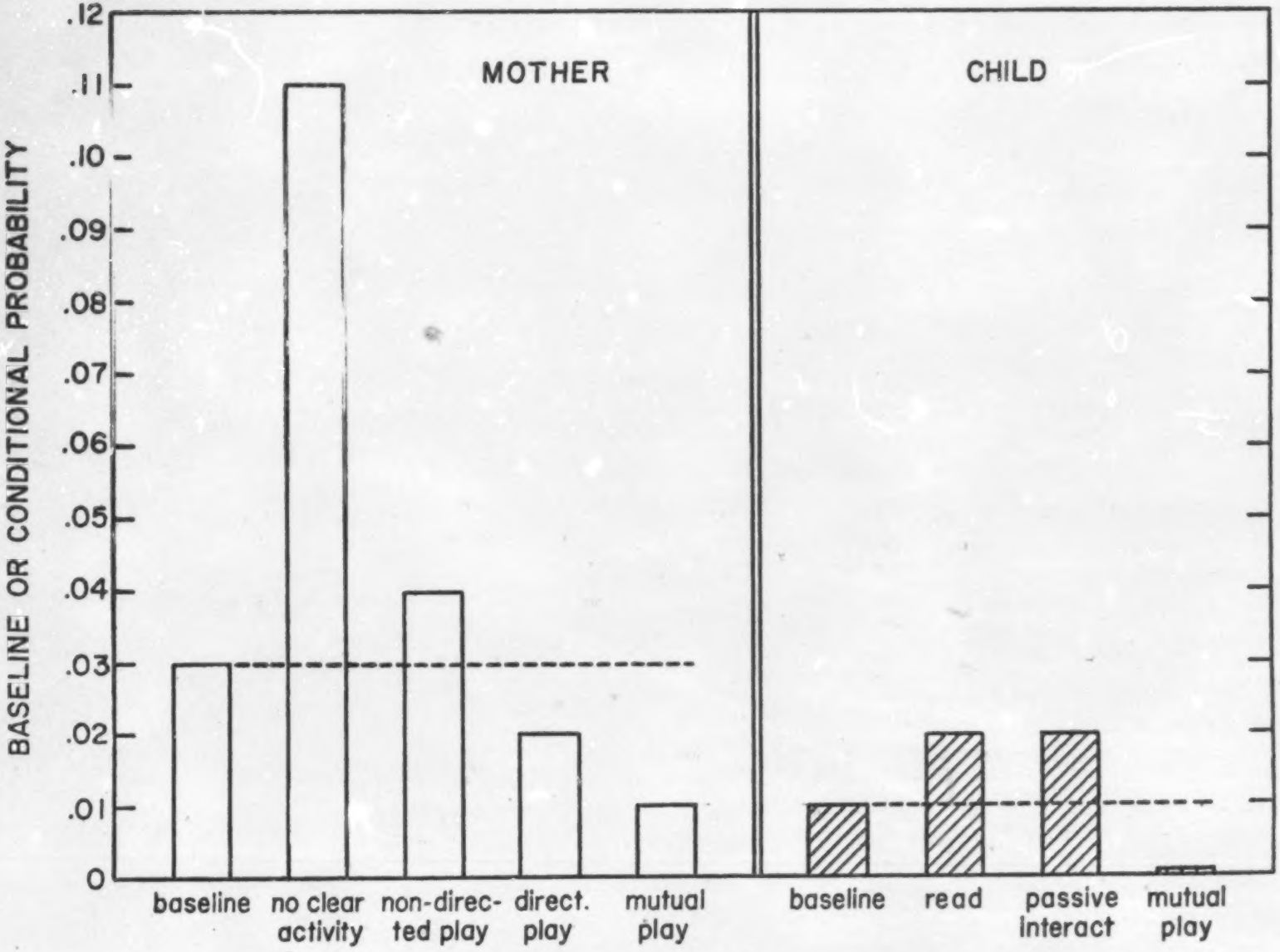
Figure 1. Proportion of session spent by mothers and children in four behavioral states.

Figure 2. Comparisons of simple and conditional probabilities for suggest new activity by mothers and children.

Figure 3. Comparisons of simple and conditional probabilities for modifying the other's behavior by mother and children.

Figure 4. Comparisons of simple and conditional probabilities for show by mothers and children.

Figure 5. Comparisons of simple and conditional probabilities for give by mothers and children.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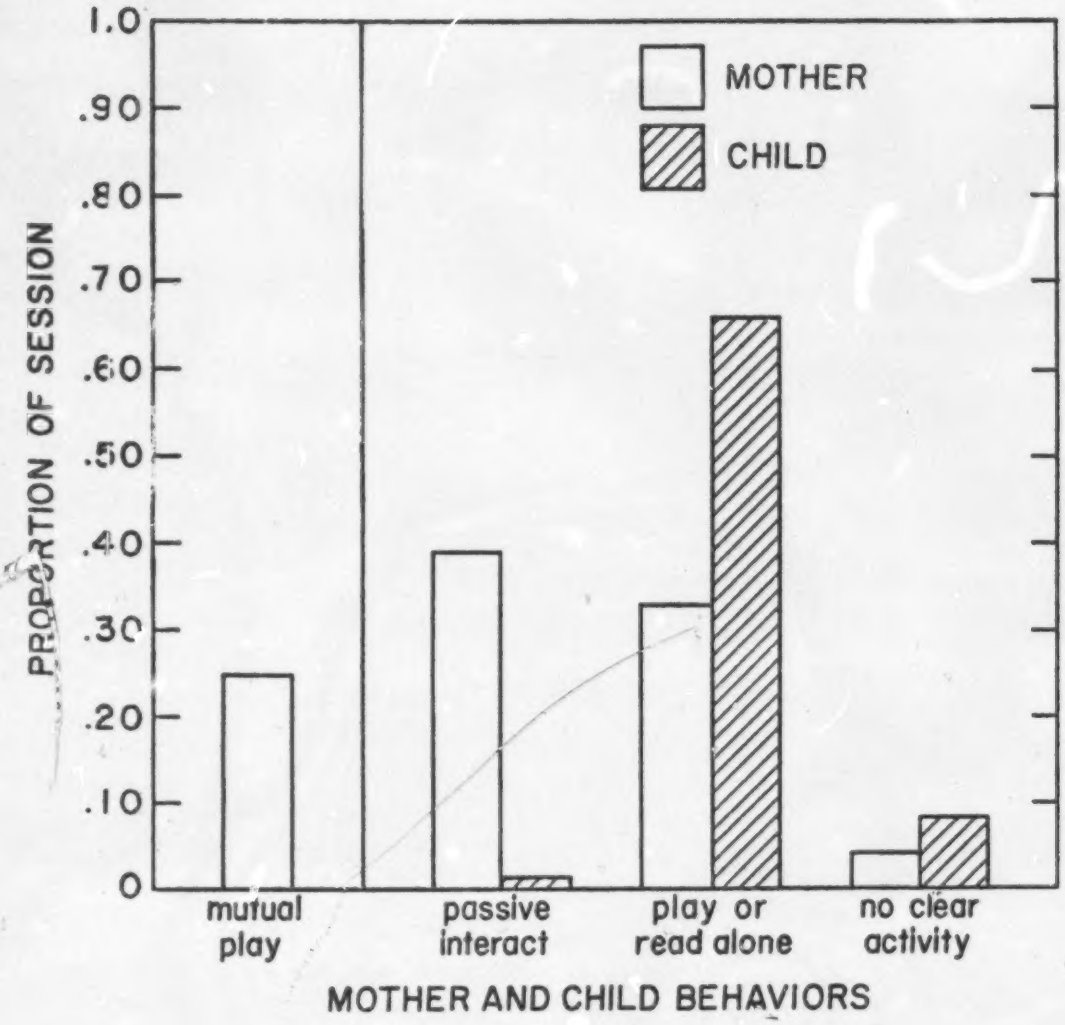
BASELINE OR CONDITIONAL PROBABILITY
MOTHER
CHILD
baseline
no clear activity
non-directed play
direct. play
mutual play
baseline
read
passive interact
mutual play
PROBABILITY OF SUGGEST NEW ACTIVITY GIVEN BEHAVIOR OF THE OTHER:

FIG. 1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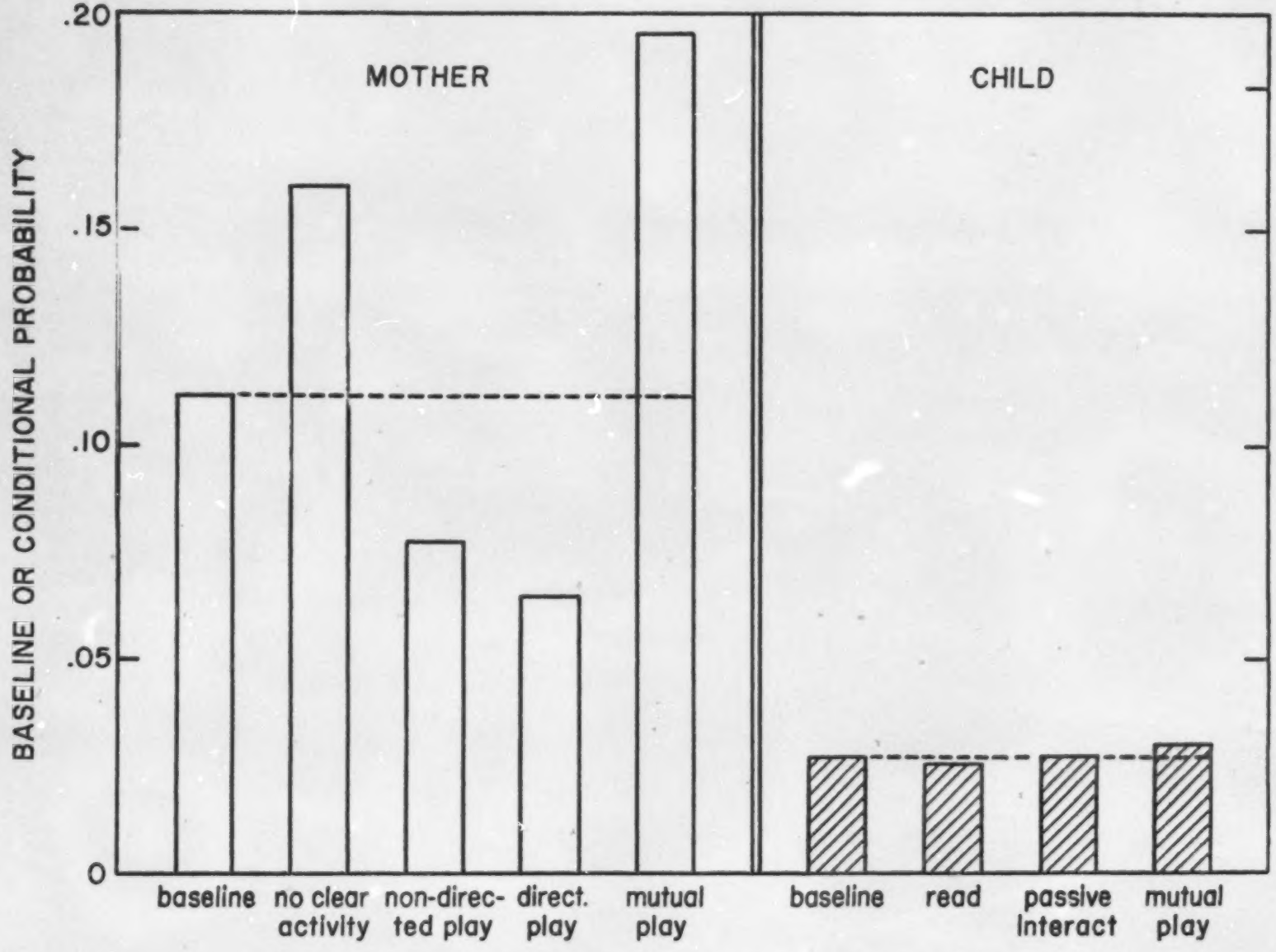
PROPORTION OF SESSION
MOTHER
CHILD
mutual play
passive interact
play or read alone
no clear activity
MOTHER AND CHILD BEHAVIORS

FIG. 2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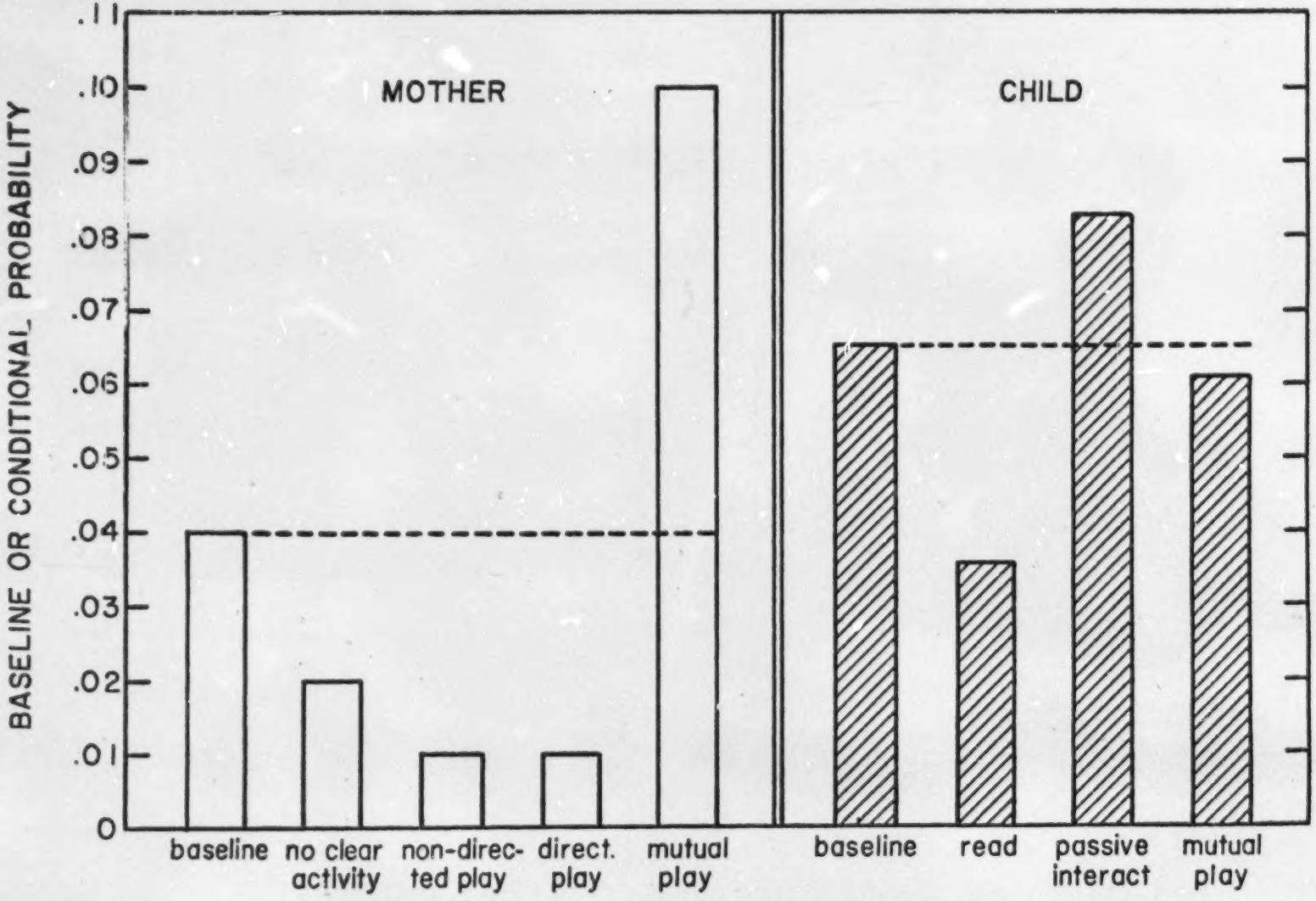
BASELINE OR CONDITIONAL PROBABILITY
MOTHER
CHILD
baseline
no clear activity
non-directed play
direct. play
mutual play
baseline
read
passive interact
mutual play
PROBABILITY OF MODIFY GIVEN BEHAVIOR OF THE OTHER:

Fig. 3


BASELINE OR CONDITIONAL PROBABILITY
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MOTHER
CHILD
baseline
no clear activity
non-directed play
direct. play
mutual play
baseline
read
passive interact
mutual play
PROBABILITY OF SHOW GIVEN BEHAVIOR OF THE OTHER:

FIG. 4

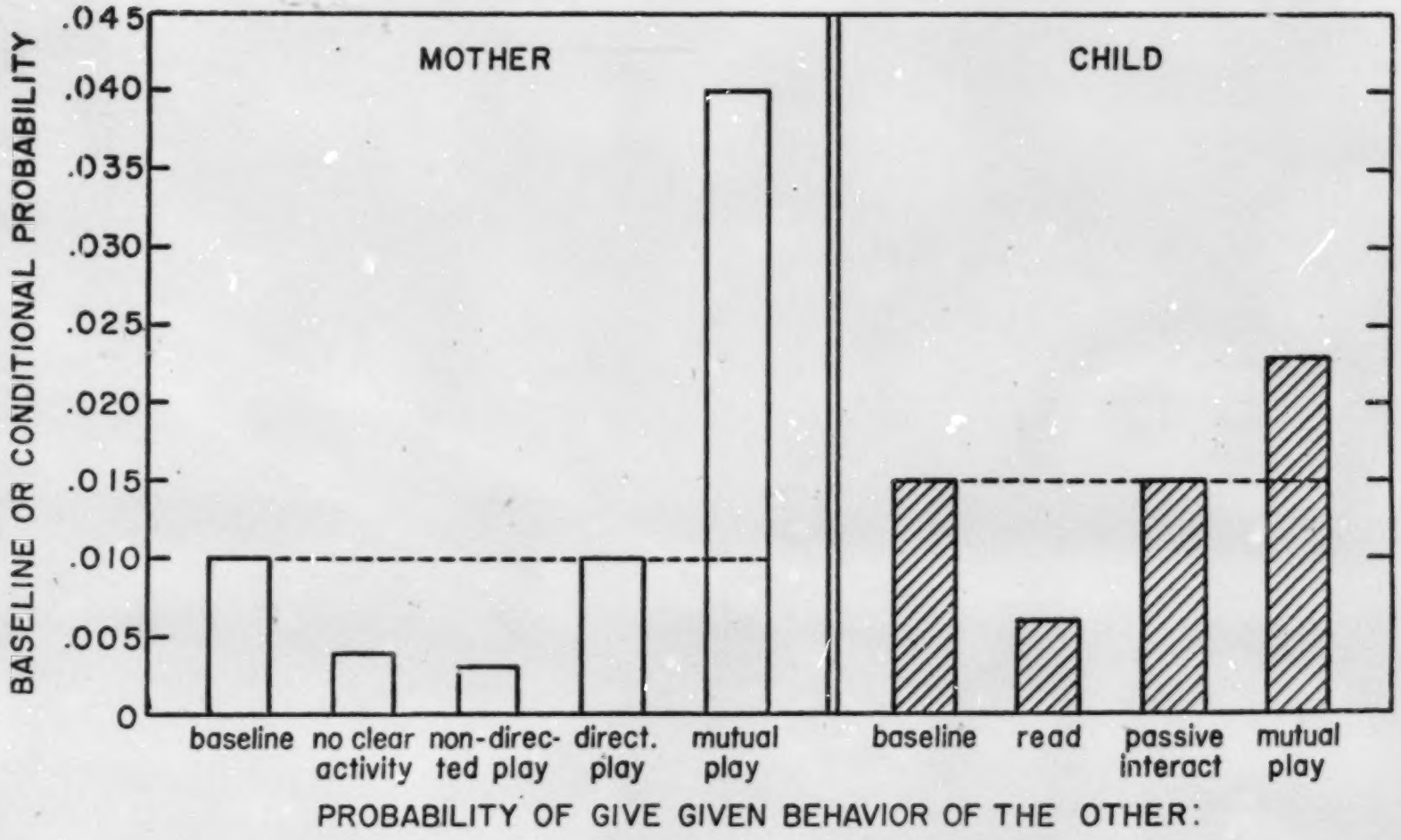
BASELINE OR CONDITIONAL PROBABILITY
.045
.040
.035
.030
.025
.020
.015
.010
.005
0
MOTHER
CHILD
baseline
no clear activity
non-directed play
direct. play
mutual play
baseline
read
passive interact
mutual play
PROBABILITY OF GIVE GIVEN BEHAVIOR OF THE OTHER:

FIG. 5